



العمارة al-Imara

Newsletter of the Department of Architecture and Urban Planning

www.qu.edu.qa/engineering/architecture/

Volume 2, Issue 1 | Fall 2018

DAUP Secures NAAB-SE Status

In a tremendous accomplishment for the students, faculty, staff of the department, College of Engineering (CENG), and Qatar University (QU), the Bachelor of Architecture program offered by the Department of Architecture and Urban Planning (DAUP) successfully achieved accreditation for Substantial Equivalency (SE) status in 2018 from the National Architectural Accrediting Board (NAAB) of the United States. The term "substantial equivalency" identifies a program as comparable in educational outcomes in all significant aspects, and indicates that it provides an educational experience meeting acceptable standards, even though such program may differ in format or method of delivery. The designation is valid for six years beginning 1 January of the year in which the final visit (Visit 3) took place. In order to maintain the designation, the program must be visited again in the sixth year of the designation.

Αt the conference the news announcing accomplishment, CENG Acting Dean Prof Abdelmagid Hammuda said "NAAB accreditation of (our) Architecture Program comes in line with the expansion of the number of college programs and students. Academic accreditation is one of the most important achievements of CENG through the concerted efforts of all CENG members in coordination with industrial partners to ensure that students get high education of international standards." At the same event, DAUP Head Dr. Fodil Fadli said "NAAB SE related academic accreditation. which is considered as one of the most important institutions of the international architectural

education, is an important indicator of the quality of education provided by DAUP to support industry and community in the architectural field."

Qatar University, College of Engineering, Department of Architecture and Urban Planning has received the substantial equivalency designation from the National Architectural Accrediting Board for the following professional degree program: Bachelor of Architecture [B.Arch] – 2018.

Copies of documents, previous visits reports and decision letters are publicly available online (www.qu.edu.qa/engineering/academics/architecture/programs/naab) and the DAUP Architectural Learning Resource Center (ALRC) in C07-267 of the QU Women's Engineering Building.

(Some excerpts from the 20 September 2018 article "NAAB accreditation for QU architecture program" in The Peninsula.)





From the Head of Department



Welcome to the third issue of al-Imara! We had a very successful inaugural year with two issues of Al-Imara newsletter.

It is the start of a new, exciting, and promising

year for our department! The Department of Architecture and Urban Planning made tremendous achievement last spring, which is the National Architectural Accreditation Board's Substantial Equivalency (NAAB-SE) designation as part of its accreditation process. We could not be prouder of the combined accomplishments and efforts of our students, faculty, and staff. We highly appreciate all of the support, time, help, and assistance that we have received from Qatar University, the College of Engineering and our Industry partners. This achievement helps encourage and push us towards even larger goals in the future as well as help to raise our students' enthusiasm for their field, studies, and educational journey in the Department of Architecture and Urban Planning. Let us further celebrate by looking through this latest issue and seeing some of the amazing work and accomplishments of our beloved students and future architects, carefully guided by our expert-faculty and instructors.

We look forward to bringing you the best of *Al-Imara* in this issue and the future.

Dr. Fodil Fadli 1 November 2018



News conference announcing NAAB-SE status for the DAUP.

ABOUT THIS ISSUE OF AL-IMARA

From the Editor



Welcome back!

It has been a long summer break. We hope it was relaxing and well spent for all. Al-Imara is coming back with more student projects, news, and exciting stories.

I'm Reham Qawasmeh, the new Editor of Al-Imara. I'm very excited to be part of this team and look forward to a fruitful edition of our magazine. There are going to be lots of interesting and informative topics about architecture in this and upcoming editions. We will be publishing special coverage on all events, interviews, seminars, and workshops related to our field. So get a copy of our latest Al-Imara newsletter, sit back and enjoy our wide collection of news. Let's have a great time back with Al-Imara!

Architect Reham Qawasmeh 1 November 2018

al-Imara العمارة Newsletter of the Department of Architecture and Urban Planning

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UPCOMING EVENTS

Classes Suspended 2018 QU Graduation Ceremonies Sunday-Monday, 11-12 November 2018

QU-AIAS "Architectural Folly" Competition for National Day Celebrations in Darb Al-Saai

DUE: 24 November 2018

Winners Announced (including conveying Certificates of Award for 1st, 2nd and 3rd Prizes with lots of 'chocolaty goodness') Sunday, 2 December 2018

Last Day of the Fall Semester Classes Monday, 3 December 2018

Final Exam Period

Tuesday, 4 December 2018 – Monday, 17 December 2018

End of the Fall Semester Monday, 17 December 2018

National Day Holiday Tuesday, 18 December 2018

Game, Set Match IV: Connecting People, Spaces and Machines 6-7 February 2019 Qatar University, Doha

Stay tuned for more event announcements!

More News Bits

The first DAUP Public Lecture in 2018-19 was held on Monday, 29 October 2018 in C07-149 when chartered building surveyor **Victor Ayegba** presented an informative lecture on Value Engineering in the AEC sector.

Topology Optimization of High Rise Buildings: From Computational Design to Digital Fabrication is an expertise workshop and seminar being held in Qatar University-CENG Building B09 organized by the TopOpt research team led by **Dr. Fodil Fadli** on 14-15 November 2018 with USA collaborators from Johns Hopkins University and Optim Design and MZP industrial partners from Qatar.

Dr. Mark David Major will present "The Spatial Logic of Doha" at the *International Traffic Safety Conference 2018* hosted by QNRF at the Sheraton Grand Doha Resort & Convention Hotel on 26-27 November 2018.

Dr. Fodil Fadli will chair "Art in Public Spaces" expert panel discussion to be held in Museum of Islamic Art [MIA] Doha on 5 December 2018. The event is co-organized by DAUP and the British Council.

GET TO KNOW

Dr. Mark David Major

Now in his second year at QU, Dr. Mark David Major joined the DAUP Faculty in 2017 after previously teaching at the Savannah College of Art & Design

and University College London as well as several years in the private sector. Maryam Nasser A J Al-Nuaimi asks three questions of Dr. Major so you can get to know him better.



Who was your architecture role model when you were a student?

Growing up in the American Midwest, the first role model for any aspiring architect is Frank Lloyd Wright. I had a brief flirtation with Post-Modernism during my early undergraduate education at Clemson University, mostly focused on Michael Graves. My junior and senior year studio instructors were Criss Mills (later author of Designing with Models) of the Atlanta firm Scogin, Elam and Bray and Thom Mayne of the Los Angeles firm Morphosis, respectively. This led to a fascination with Peter Eisenman's early architecture. My postgraduate education and later working with Bill Hillier and Julienne Hanson (authors of The Social Logic of Space) at University College London during the 1990s had a profound influence on my career. I also count Robins Evans, noted architectural historian, teacher, and essayist at the Architectural Association in London during the 1990s, as one of my heroes.

How is your experience of teaching at Qatar University?

I love teaching at Qatar University. It is an honor and privilege to teach so many bright, and talented students. My students are the reason for waking up and getting out of bed every morning.

What are you passionate about?

The people who know me best have always said that teaching is what I am most passionate about. I love research, too; but not research for mere research's sake. To me, research is a means to the teaching.

TEACHING FOCUS

DAUP Students Win QU Visualization Challenge in Photography & Virtual Reality

In May 2018, third and fourth Year DAUP Students won the Qatar University Visualization Challenge in the undergraduate photographic and virtual reality categories.

DAUP student Alreem Al-Emadi (now fourth year) won first prize in the photographic category for *The Social Life of Doha's Public Spaces*, her assignment on the Spring 2018 ARCT 420 — Environment-Behavior Studies course under the supervision of Dr. Mark David Major.

DAUP fourth-year students Nancy Makhoul, Shimaa Abdelkarim, Fatima Shaker, Sara Al-Muhsin, Aisha Al-Sulaiti, and Noor Al-Humaidi (now seniors) won first prize as part of the multi-disciplinary team for the Dar Al-Maha project in the Virtual Reality category under the guidance of Dr. Djamel Ouahrani.



Alreem Al-Emadi receives her First Prize Aware for the 2018 QU Visualization Challenge winner in the undergraduate Photography category.



Exterior render of the Dar Al-Maha project for the 2018 QU Visualization Challenge winner in the undergraduate Virtual Reality category.



Model of the Dar Al-Maha project for the 2018 QU Visualization Challenge winner in the undergraduate Virtual Reality category.



Project team of the Dar Al-Maha project for the 2018 QU Visualization Challenge winner in the undergraduate Virtual Reality category.

STUDENT FOCUS

Opening Remarks at NAAB-SE Celebration

by Moza Ahmad J A Al-Obaidan, QU-AIAS 3rd Year Representative

In the name of Allah the Merciful,

Blessings and peace be upon the most noble of Messengers, the Prophet Mohammad,

His Excellency the President of Qatar university/ Dr. Haasan Aldrham, Acting Dean of College of engineering/ Dr. Abdulmajeed Hamouda, Former Dean of College of Engineering Dr. Khalifa al Khalifa, Head of Department of Architecture and Urban Planning Dr, Fodil Fadli, our respected faculty members, and guests. Firstly, welcome all and thank you for joining us. Achieving the NAAB accreditation for the Bachelor of Architecture is a great honor for us that deserves a celebration. Thank you for believing in us and in our abilities; to graduate new generations with certificates to change the world's features.

بقلم: موزة أحمد العبيدان، ممثل QU-AIAS للسنة الثالثة

بسم الله الرحمن الرحيم والصلاة والسلامُ على نبيّنا محمدٍ خاتم النبيين

الدكتور الفاضل حسن /سعادة رئيس جامعة قطر الدكتور /الدر هم، سعادة عميد كلية الهندسة السابق /عبدالمجيد حموده، سعادة عميد كلية الهندسة السابق الدكتور خليفة آل خليفة، الفاضل رئيس قسم العمارة والتخطط العمراني الدكتور فضيل فاضلي، السادة المسلام عليكم أعضاء هيئة التدريس، ضيوفنا الكرام :وبعد ورحمة الله وبركاته

أولًا أرحب بكم جميعًا، وأشكر استجابتكم لدعوتنا،

إن حصول تخصص العمارة على الاعتماد لشرف لنا يستحق إحتفالًا ووجودًا (ناب)الدولي مثل هذا،

والحمدلله على فضله ومنه، ثم الشكر كل الشكر لإيمانكم بنا، وبقدر اتنا؛ لتخريج أجيال جديدة بشهادات معتمده للتصميم المعماري وتغيير ملامح العالم





(left) QU-AIAS representatives lead the NAAB-SE celebration event hosted by the Department of Architecture and Urban Planning on Monday, 1 October 2018. Left to right: QU-AIAS third year representative/event moderator Moza Ahmad J A Al-Obaidan; QU-AIAS President Maryam Bader Al-Kuwari; QU-AIAS Vice President Aisha Saad Al-Sulaiti; QU-AIAS Secretary Maryam Nasser A J Al-Nuaimi; and QU-AIAS second year representative Shaikha Al-Thani. (right) CENG Acting Dean Prof Abdelmagid Hammuda speaks at the NAAB-SE celebration event hosted by the Department of Architecture and Urban Planning on Monday, 1 October 2018 (Images: Mark David Major).

PROJECT FEATURE: 2018 AEB ARCHITECTURE PRIZE WINNER

Maryam Aljufairi's Baraha Women and



Community Hub عربي للشؤون الهندسية العربي للشؤون الهندسية Arab Engineering Bureau



Summary - The 2018 AEB Architecture Prize Winning project of Maryam Aljufairi creates a unified link between the Community Hub and its Surrounding facilities. accommodate Hub will several sectors such as: women center, creative re-use center, community center. It will be the focal point in the community by linking all different members of the community in one space. The overall design will feel natural and welcoming. There will be a high level of visibility throughout the site by designing open spaces that flow into each other. Well done, Maryam!

Project Description

Project Location: Al-Messila, Doha

Project Mission: This project brings together people from all parts of the society. It acts as a prime point for the immediate community; it services the community, providing socializing. entertainment, educational, healing space and empowers women leadership in Qatar. The Community Centre unifies and connects the various functions and focus on public outdoor spaces and creative re-use concept, to provide an environmental atmosphere.

Project size: 39,547 sqm Structure: Baring wall structure. Materials: concrete, metal, aluminum, marble and stone.

Est. Cost: 21,528,517,500 QR

STUDENT WORK

QU Visualization Challenge Virtual Reality Winner



Participations:

- Participated in the 8th Engineering Gathering in Sultan Qabas University in Muscat, Oman (12-8 April, 2018)
- Participated in the Graduate Studies Open-day at Gafar University (1st Morch 2018) + VR Tour
- Participated in the Qatar National Day. Celebration Darb AlSaai (16th -18th December 2017) + VR Tour
- · Participated with a booth in **EDxAlDatnaED (11th November 2017) +
- Participated in Qatar Sustainability Week-Qatar GBC's QSW (30th October 20171
- Presentation to ASHRAE QATAR ORYX CHAPTER (24th May 2017)
- Participated in a booth in the Second International Conference on Energy and Indoor Environment for Hot Climates (26th to 27th February

Dor Al-Moha GU Project Supervisor: Dr. Ahmad K. Sleitt. PRD FF CIM Contact info Phone: 33895336 Emoit DarAlMahaQUilloutlook.com Facebook, Iwitter, Instagrams @DarAMahaQU



DAR AL-MAHA

- A Jean of 26 members from
- Mechanical Engineering Bectrical Engineering
- Architecture and Urban Planning
- Industrial Engineering

Working together to...

- Design and build a fully solar powered
- Advance research in solar energy.
- Raise awareness of the existing clean energy solutions.
- · Empower multi-discolinery projects.
- . Reflect the essence of the culture.



THE FUTURE IS

Customizing the Individual Experience

A potential for users to engage with the immersive environment they are in, which will help prospective-buyers to visualize their perfect setting for their dream home

2. Simulating Real-World

individuals can test fre simulations to see now long it takes for them to evacuate and evaluate how intuitive the evacuation routes are within a building. This is a safe and controlled way to receive feedback pre-build.

Construction Training

VR experiences can act as a proactive approach making constructions sites more efficient, intuitive and most importantly safe:

4. Low Cost of Implementation Designing a virtual reality experience can

be done much more quickly and at the fraction of the cost of a showroom.

5. First-Mover Advantage

There is an enormous competitive advantage to being one of the first-movers in the marketplace in terms of brand recognition



House Characteristics

- · Portable house (can be assembled and disassembled in 9 days)
- Portable foundations
- 2 layers of sandwich panels for the exterior wais
- · Inclined and flat roots
- Structural elements (steel bars)
 Photovoltaic PV panels
- · Energy management system
- (batteries and maniforing)
 Centralized HVAC system
- Water supply and plumping
- Water heating system
- Frefighting system
- · Automated irrigation system
- Natural lighting system



STUDENT WORK

QU Visualization Challenge Photography Winner

A Whiter Shade of Pale, 12 pm Escapism

Being allowed to see the world beyond colors. Ultimately, with black and white photography, it is a technique that can enhance our ability to less our story or experience through imagery. Cermonial Court and Oxygen Park loacted in Ostar Foundation where my photographing experience went.

Pleasing the human senses which are Auditory by providing water surfaces. Visual by different architectural elements that emphasizes this space more and

gives it the great contrast betwen light and shedows whenever the sun hits a surface, besides the green surfaces that satisfies offactory.

People experience lots of different feelings of joy by just passing through these spaces. Specially because of the events that eventually are done at both spaces. where it mostly gather different age groups where it clusters age groups through various activities.

On the other hand, those spaces are considered as places to relax at when there is no activities that's occurring there and not much people visiting, as it's

located in between the universidies, most likely will be tree of people at some slots to enjoy the spaces with yourself of the perosn you like it you wanted to do so

Alneem Khalid Alemadi













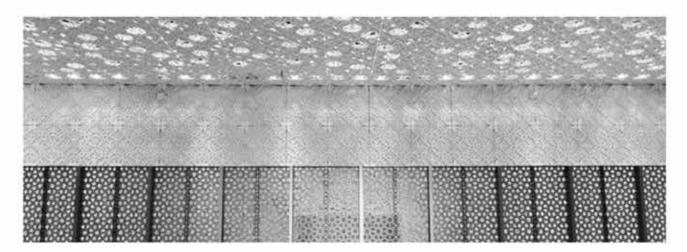






PHOTOGRAPHIC FEATURE I ARCHITECTURE IN FOCUS

Msheireb Downtown Doha



The Msheireb Downtown Doha ("The New Centre of Doha") brings Doha's old centre back, recreating the community feeling and cultural roots upon which the city was founded. Designed to offer the perfect balance between every aspect of life, the residences, commercial, retail and cultural offerings will nurture a complete and sustainable lifestyle in the heart of Doha. Located in Doha next to Souq Waqif, Msheireb is the world's first sustainable downtown regeneration project, that will revive the old commercial district with a new architectural language that is modern, yet inspired by traditional Qatari heritage and architecture – its proportion, simplicity, space, light, layering, ornament and response to climate. The Mihrab Wall (above) is beautifully decorated with patterns in the ceiling, which allows for the intrusion of natural light to be diffused into the space, casting distinctive and intricate shadows The concept of the mosque (lower left) is based on the principles of simplicity, functionality and spirituality of traditional Qatari mosques combined with a modern interpretation. Msheireb Downtown Doha will become a new social and civic hub in the city centre – a place where it is enjoyable to live, work, shop, visit, and spend time with family and friends. (Images: Afrah Abdulkarem Al-Housaly).







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RESEARCH FOCUS

Adaptive Thermal Comfort Model for Office in Hot Desert Climates

by Dr. Madhavi Ingradanti

Human existence or extinction hinges on thermal comfort and adaptation. Thermal comfort effects both health and productivity of occupants in buildings. Maintaining appropriate indoor temperature and other environmental conditions is challenging as it impacts the energy bills and overall sustainability of the building.

Qatar has energy surplus. However, increasing building energy demand, low power tariffs coupled with plummeting oil prices in the recent years necessitate rethinking on the comfort delivery. Researchers identified that thermal insulation regulation makes a small impact on thermal comfort. The mean comfort temperature was 24.0 °C. It varied with indoor temperature and seasons. We noted an adaptive relationship between comfort temperature and outdoor temperature. It can be used in buildings of similar nature. Comfort temperatures in Qatari offices are found to be the lowest (lower by 0.9 - 2.4



Thermal comfort survey (a) The instrument setup, (b) process of survey data collection, (c) instruments at a workstation group, (d–g) typical environments surveyed.

K), when compared to the other offices Asia and Europe, despite Qatar being the hottest climate of all. Similar is the case with indoor temperature, which the comfort temperature closely followed in a cyclic-path dependency. Indoor comfort temperature varied by about ½ K for a 10 K change in outdoor temperature. It also implies that the comfort temperature in Qatar is less sensitive to the oscillations in the prevailing outdoor conditions than that of European and Indian mechanically ventilated offices. We noted overcooling. All the offices experienced near still air conditions with 80% offices having less than 0.05 m/s air speed. It is imperative to note that people adapt and negotiate comfort around the mean temperatures at which the buildings are operated; And that the extent of adaptation mechanisms possible in a building determines its comfort band. These in turn hinge on the building design, its malleability to adaptive operation. Comfort in mechanically ventilated buildings is a manufactured product being delivered to the occupant. Therefore, the comfort discourse may ideally be centered around the occupant adaptation within the built environment and its associated ways of life, rather than merely meeting a narrow band of temperatures.

The sustainability goals of Qatar's National Vision 2030 make the adaptive approach to comfort design and delivery necessary. We need more elastic definitions of comfort to positively link the indoors with outdoors. Increasing indoor air speeds and variable comfort standards may well be the steps in that direction.

News Bits

Dr. Fodil Fadli was an invited speaker in *Sustainability Summit 2018* organized by the Gulf Organization for Research & Development held at the Ritz Carlton in Doha on 23-24 October 2018. He also presented recent research work on Topology Optimization and Computational Design at the *Qatar Green Building Council Conference* in the Sheraton Grand Hotel, Doha on 28 October 2018.

The 12th International Space Syntax Symposium hosted by Beijing Jiaotong University on 8-13 July 2019 in Beijing, China has accepted four (4) papers co-authored by **Dr. Mark David Major**, **Velina Mirincheva**, **Heba Osama Tannous**, and **Asmaa Saleh Al Mohannadi/Dr. Raffaelo Furlan**, giving QU-DAUP one of the largest contingents in the world to attend/present at this event held every two years since 1997.

Game Set Match IV: Connecting People, Spaces and Machines conference organized by by a DAUP team of faculty and researchers led by Professor Kas Oosterhuis and Dr. Fodil Fadli will occur 6-7 February 2019 at the Qatar University Library in Doha, Qatar.

About QU-AIAS

The QU-AIAS is an independent, nonprofit, student-run organization dedicated to providing unmatched progressive programs, information, and resources on issues critical to architecture and the experience of education. The AIAS aims to promote excellence in architectural education, training, and practice; to foster an appreciation of architecture and related disciplines; to enrich communities in a spirit of collaboration; and to organize students and combine their efforts to advance the art and science of architecture. Our mission is advancing leadership, design, and service among architecture students.

QU-AIAS membership supports architecture students in our department but also across the United States and academic programs around the world. QU-AIAS promote excellence in architecture education, and training. Architectural practice is constantly evolving. A large part of that evolution happens in schools. A pedagogy that promotes experimentation and exploration above all. AIAS



members understand their role in the profession as leaders. Not the future of the profession but the now. Programs like Freedom by Design, CRIT and Grassroots mentorship empower students to own that role. We foster an appreciation of architecture, design and related disciplines in departmental events, annual gatherings, and regional conferences, providing students with the opportunity to learn about the issues facing our world, to meet students and professionals with common interests, and to interact with some of today's leading architects and designers.

QU-AIAS enrich communities in a spirit of collaboration through the Freedom by Design™ program and other community outreach, we are

empower our members and students as a whole to be good citizens on their campuses and in their communities. We organize students and combine their efforts to advance the art and policy of architecture by being the sole student voice in the collateral discussion and decision making process that include The American Institute of Architects (AIA), The Association of Collegiate Schools of Architecture (ACSA), The National Council of Architecture Registration Boards (NCARB) and The National Architectural Accrediting Board (NAAB).

Join QU-AIAS and Get Involved Today!

Annual membership dues are \$60. You can join the QU-AIAS online at http://www.aias.org/membership/#join. Follow us on Instagram @aias_qu.

YOUR QU-AIAS LEADERSHIP TEAM

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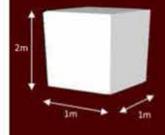
ARCHITECTURAL FOLLY COMPETITION

* PRIZES

* CERTIFICATES

ARE

AVAILABLE



DESIGN A CHILDREN SCALE
MODEL
FOR DAUP BOOTH AT DARB ALSAAI

DESIGN SPECIFICATIONS:

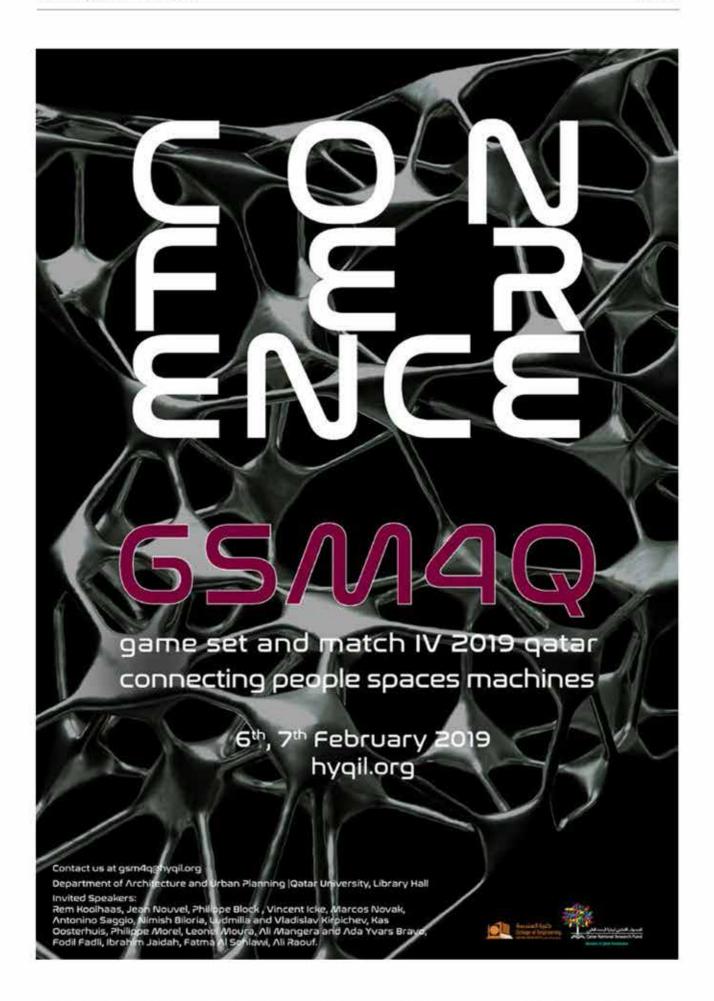
- 1m WIDE X 2m HIGH
- LIGHT ENOUGH TO BE TRANSPORTED.
- STURDY ENOUGH TO BE WITHSTAND MULTIPLE CHILDREN, SO THEY CAN DRAW GRAFFITTI ON IT.

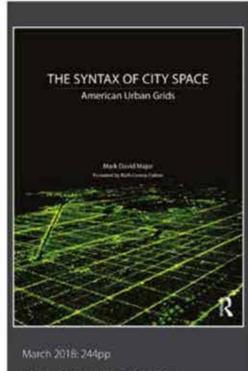
SUBMISSION

DEADLINE: 24th NOVEMBER

E-MAIL: AIAS-DAUP@QU.EDU.QA

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About the Author

20% Discount with this Flyer

The Syntax of City Space

American Urban Grids

Mark David Major

The Syntax of City Space explores the urban morphology of American cities. It argues American cities do represent a radical departure in the history of town planning while, simultaneously, still being subject to the same processes linking the urban network and function found in other types of cities around the world. A historical preference for regularity in town planning had a profound influence on American urbanism, which endures to this day.

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DEPARTMENT OF ARCHITECTURE & URBAN PLANNING cordially invites you to a seminar/workshop on

'TOPOLOGY OPTIMIZATION OF HIGH RISE BUILDINGS: FROM COMPUTATIONAL DESIGN TO DIGITAL FABRICATION'

BY THE TOPOLOGY OPTIMIZATION RESEARCH GROUP

DATE: 14-15 November, 2018

Seminar - 9:00am to 12:00am TIME:

Workshop - 14:00pm to 18:00pm

Seminar - B09 Room 106 VENUE:

Workshop - Women Engineering

Building, C07

ABSTRACT

The positive points of having simultaneous effect of engineering considerations and architectural geometry and form on together, for multidisciplinary and complex topics, is clear for all. One of the main effective and closest area to architecture is structure. This integration is so operative for some types of buildings such as tall buildings. Computational platform has a very good potential for this kind of method of design and thinking. In this workshop, Grasshopper plug-ins operated on Rhino is used for this interdisciplinary considerations and parameters. Karamba3D 1.3.0 WIP is used for structural analysis. Karamba is a Finite Element program (Plug-in) like many other structural software operated on Grasshopper. The main important point of that is to be used for architects and engineers in the early design stages.



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